

REMARKS/ARGUMENTS

STATUS OF CLAIMS

In response to the Office Action dated December 24, 2008, claims 1, 3, 5, 8, 10, 11, and 14 have been amended. Claims 2, 4, 6, 7, 9, 12, 13, and 15-21 are canceled. Claims 22-28 are new.

Claims 1, 3, 5, 8, 10, 11, 14, and 22-28 are now active in this application. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

I. Claims 1-9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Osaka et al. (U.S. Patent 6,023,277) in view of Lipton et al. (US 2002/0011969).

As disclosed in the present application, there are various methods of displaying a three-dimensional image, and the respective recorded data generally lacks compatibility among different display schemes. For example, data recorded for display as time-division scheme cannot be displayed as it is on a three-dimensional display adapted for a parallax barrier scheme. Subsequently, image data is conventionally recorded assuming a fixed display method and the data necessary for display of the image data is recorded. Also, an image recording format is fixed based on the type of display method.

Embodiments of the present invention covered by independent claim 1 are directed to a multimedia information generation apparatus (e.g., Figs. 30, 2, 23-26) for generating multimedia information including at least one two-dimensional image data (two-dimensional image data) or character information and at least one three-dimensional image data (three-dimensional image

data) based on a plurality of viewpoints enabling stereoscopic vision. In particular, the multimedia information generation apparatus includes, among other things, a control information generation unit (e.g., three-dimensional display control information generation unit 11) capable of generating three-dimensional image display control information necessary for converting the three-dimensional image data for enabling stereoscopic vision in a desired form appropriate for a display unit. The control information generation unit generates identification data for identifying the at least two three-dimensional image data and including the identification data in the three-dimensional image display control information, and only one identification data being provided for the at least two three-dimensional image data (Fig. 31; see specification at page 34, “when all of the image data stored in one module are three-dimensional image data, only one piece of three-dimensional image display control information having an identifier of 0 for example may be stored”).

Neither Osaka et al. nor Lipton et al. discloses or suggests a multimedia information generation apparatus. Both Osaka and Lipton are directed to display processing. Osaka discloses a display device having a display controller for presenting a three-dimensional display from three-dimensional image data.

On pages 22-23 of the Response to Arguments section of the Office Action, the Examiner maintains that, “Osaka and Lipton clearly provide information which is utilized to control and affect the display of image data, in which Lipton provides camera arrangement information for image pick-up”. To the contrary, claim 1 recites “a multimedia information generation apparatus for generating multimedia information including at least one two-dimensional image data or

character information and at least two three-dimensional image data based on a plurality of viewpoints.”

In the Office Action, the Examiner also maintains that the claims do not recite that an image data reproduction apparatus uses the control information to be able to know the kind of format the three-dimensional image data has been recorded and will be able to know the kind of processing needed for displaying the three-dimensional data (see first full paragraph on page 22 of the Office Action). Applicant notes that claim 1 does not recite an “image data reproduction apparatus.”

To expedite prosecution, independent claim 1 has been amended to delineate, *inter alia*:

..., said control information generation unit generating identification data for identifying said at least two three-dimensional image data and including said identification data in said three-dimensional image display control information, and only one said identification data being provided for said at least two three-dimensional image data.

Neither Osaka et al. nor Lipton et al. discloses or suggests the features now recited in amended independent claim 1 and respective dependent claims. Therefore, claims 1-9, as amended, are patentable over Osaka et al and Lipton et al.

II. Claims 10 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Osaka et al. in view of Akamatsu et al. (U.S. Patent 6,313,866), in further view of Lipton et al. and in further view of Ellson et al. (U.S. Patent 5,805,783).

Embodiments of the present invention covered by claim 10 are directed to a multimedia information reproduction apparatus (e.g., Fig. 27) for reproducing multimedia information generated by a multimedia information generation apparatus, said multimedia information

generation apparatus generating said multimedia information constituted of at least one two-dimensional image data or character information and at least two three-dimensional image data, three-dimensional image display control information, and header information necessary for reproducing data (e.g., header control information), said multimedia information reproduction apparatus comprising:

a generation unit (2D/3D conversion unit 54) generating a three-dimensional image data from said two-dimensional image data; and

a first synthesis unit synthesizing (e.g., three-dimensional image synthesis unit 55) said three-dimensional image data generated by said generation unit (e.g., 3D image data from 2D/3D conversion unit 54) and the three-dimensional image data included in said multimedia information (e.g., from separation unit 50 via data reproduction unit 23).

Neither Osaka et al., Akamatsu et al., Lipton et al. nor Ellson et al. discloses or suggests generating the three-dimensional image from the two-dimensional image data and synthesizing said three-dimensional image data generated by said generation unit and three-dimensional image data included in said multimedia information.

For at least these reasons, claims 10 and 11, as amended, are patentable over Osaka et al., Akamatsu et al., Lipton et al. and Ellson et al.

III. Claims 14-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Osaka et al. in view of Iizuka et al. (U.S. Patent 6,657,655), in further view of Akamatsu, in further view of Lipton and in further view of Ellson et al.

The rejections are respectfully traversed.

Embodiments covered by claim 14 are directed to the multimedia information generation apparatus of claim 1, further including a page data decoding unit (e.g., page data decoding unit 51) decoding graphic and character information included in said multimedia information to obtain a page image data;

a 2D/3D conversion unit (e.g., 2D/3D conversion unit 54) converting said page image data into a three-dimensional image data; and

a first synthesis unit (e.g., three-dimensional image synthesis unit 55) synthesizing the three-dimensional image generated by said 2D/3D conversion unit and the three-dimensional image included in said multimedia information.

As noted in the previous Response, what Lipton et al. discloses combining the master images into the final image having the full screen resolution. Lipton et al. does not disclose or suggest that converting two-dimensional data into three-dimensional image data and synthesizing the three-dimensional image data generated by said 2D/3D conversion unit and three-dimensional image data included in said multimedia information. Applicants submit that claims 14-21 are patentable over Osaka et al., Iizuka et al., Akamatsu, Lipton et al. and Ellison et al.

IV. New Claims.

New claims 22-28 recite subject matter from canceled dependent claims, but are re-written to depend from claim 14.

CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: March 24, 2009

Respectfully submitted,

By Robert Down #48222
Charles Gorenstein
Registration No.: 29,271
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant